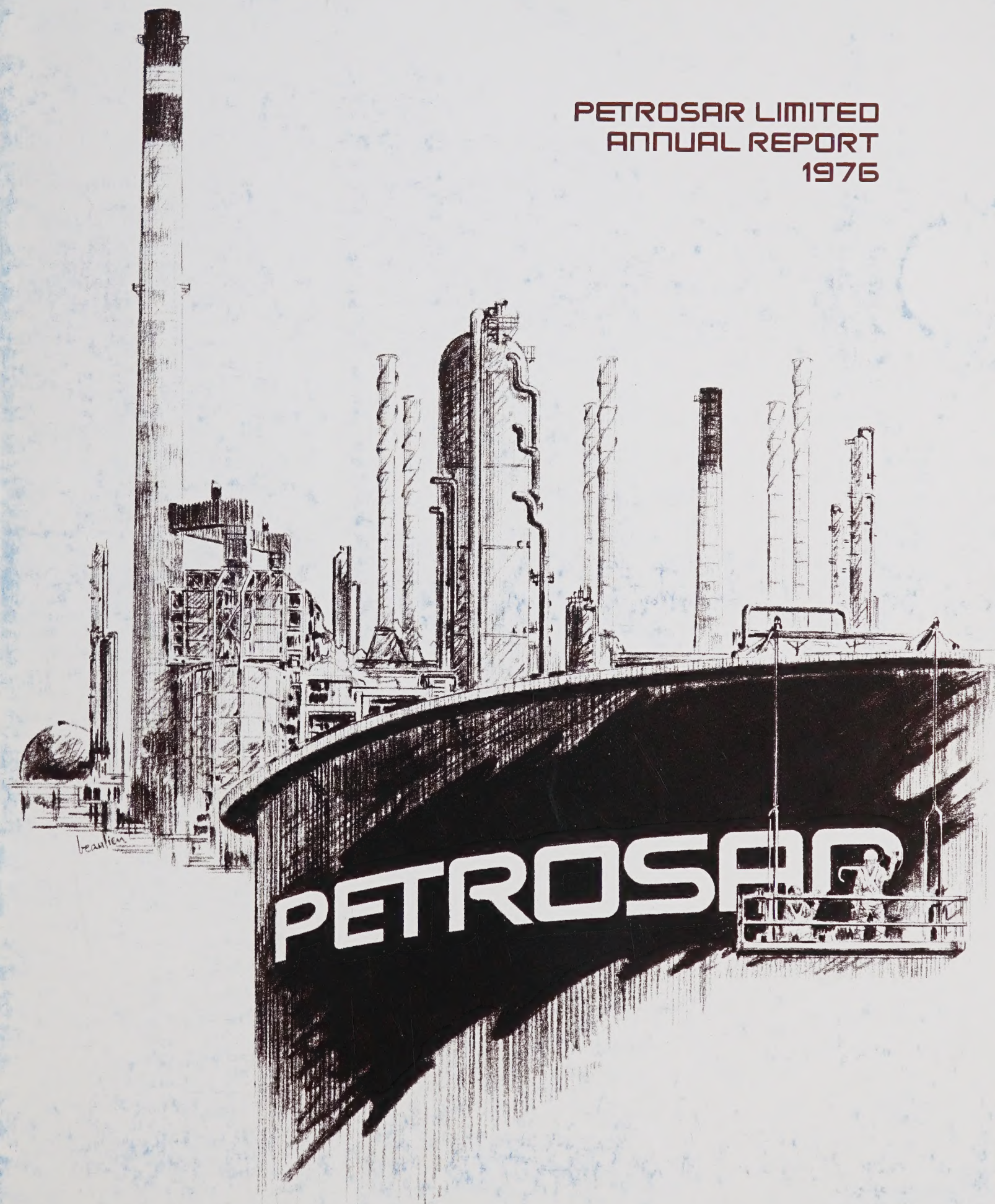
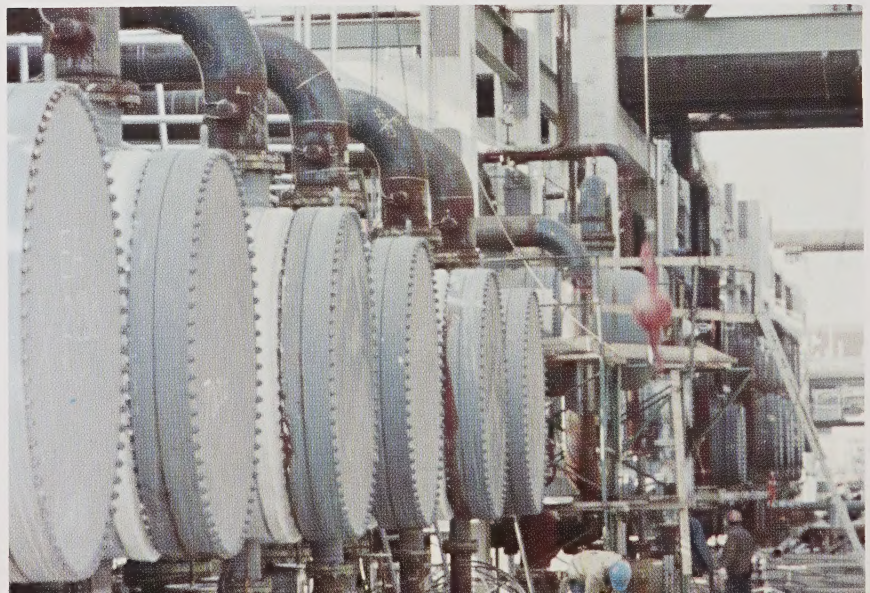


PETROSAR LIMITED  
ANNUAL REPORT  
1976









## **PETROSAR LIMITED**

785 Hill Street  
P.O. Box 7000  
Corunna, Ontario  
N0N 1G0  
Telephone (519) 862-2911

### **Ownership**

Polysar Limited .....	40%
Du Pont of Canada Limited .....	20%
Union Carbide Canada Limited .....	20%
Canada Development Corporation .....	20%

### **Officers**

I. C. Rush, Chairman of the Board  
S. P. Smith, President  
S. R. Stephenson, Vice President, Manufacturing &  
Plant Manager  
B. G. S. Withers, Vice President, Marketing  
J. Havlik, Assistant Secretary

### **Directors**

W. A. Critchley  
Vice President, Polysar Limited  
J. S. Dewar  
President, Union Carbide Canada Limited  
C. A. McKenzie  
Vice President, Polysar Limited  
J. E. Newell  
Executive Vice President, Du Pont of Canada  
Limited  
P. K. Powell  
Vice President, Canada Development Corporation  
I. C. Rush  
President, Polysar Limited  
S. P. Smith  
President, Petrosar Limited

### **Estimated Investment**

(Including working capital)  
Approximately \$650 million

### **Plant Site**

Located on a 1,100-acre site in concessions 9 and 10 in Moore Township, east of Corunna and four miles south of Sarnia. The site is adjacent to the route of the new Highway 40.

The complex, including greenbelts on its perimeters, will occupy about 400 acres, with the remainder of the land reserved for future expansion.

### **Products**

Ethylene .....	1 billion pounds a year
Propylene .....	720 Mi. pounds a year
C4 Olefins .....	500 Mi. pounds a year
Benzene .....	50 Mi. U.S. gallons a year
Aromatics .....	40 Mi. U.S. gallons a year
Gasoline .....	8,100 barrels a day
No. 2 Fuel Oil .....	31,000 barrels a day
Low Sulphur Residual Oil . . .	70,000 barrels a day
Synthetic Natural Gas .....	33 Mi. cubic feet a day
Liquefied Petroleum Gas . . .	3,500 barrels a day

### **Plant Description**

Three main process areas in the Petrosar complex consist of:

Crude oil unit  
Olefins unit  
Gasoline treating and aromatics unit,  
as well as storage tanks for crude oil,  
intermediate streams and finished products.

### **Project Schedule**

Start engineering — January 1973  
Start of construction — July 1974  
Crude Unit start up — April 1977  
Olefins Unit start up — October 1977

### **Permanent Work Force**

500

### **Site Construction Work Force**

Average — 1,800  
Peak — 3,500

### **General Contractor**

The Lummus Company Canada Limited



## ANNUAL REPORT - 1976

### PRESIDENT'S MESSAGE

The year 1976 was a period of solid progress toward the day in 1977 when Petrosar, Canada's first world-scale petrochemical enterprise, becomes fully operational. During this period, the physical facilities and the operational systems of the Petrosar project acquired the appearance of their eventual form. It was a period during which important strides were taken in moulding the individual versatilities of the growing Petrosar family into integrated team units dedicated to the achievement of our goals.

Construction of the plant facilities reached 72 per cent completion at year-end. An investment of about \$212 million during 1976 raised the total capital expenditure to nearly \$418 million since incorporation. Recruiting continued at a high level, with the addition of 253 new employees to bring our permanent staff up to 339 of a total requirement of 500.

A milestone in the development of Petrosar was reached on December 8, 1976 when the first feedstock from Alberta was received on site. Since Petrosar has not yet been recognized as an approved purchaser by the Alberta Petroleum Marketing Commission, we are continuing to obtain our feedstock requirements by negotiation with a number of suppliers in Alberta. This involves an additional marketing fee compared to purchases made at the wellhead directly from producers.

There were other tangible evidences of Petrosar's development in 1976. The commissioning of the administration, laboratory and plant operations buildings, and the move to these quarters by our administrative and manufacturing personnel, put the organization on site, though many of our people will remain in temporary quarters until construction is complete. As a new neighbor, we undertook an extensive program to familiarize our community with the forthcoming emergence of Petrosar as an operating company, and the circumstances that may be observed during the start-up of our facilities.

Important plant facilities that were turned over to Petrosar during the year by the construction contractor, The Lummus Company Canada Limited, included the crude oil storage tanks, steam generation unit, central control building, water treatment area, effluent treatment area, storm water lagoon, final effluent ponds, and the cooling tower.

It also has been a progressive year in terms of marketing. A contract was finalized for the supply of substantial quantities of propylene to be used as feedstock at a new facility now under construction in Moore Township. Agreements were made for sales of additional quantities of gasoline and No. 2 fuel oils. In addition, an exchange agreement was

finalized which will permit Petrosar to obtain optimum value from its aromatics raffinate stream. These and other contracts previously concluded account for approximately 86 per cent of our capacity in terms of sales value, which is estimated to be nearly \$1.1 billion in 1980.

A further major activity completed in 1976 was the establishment of the distribution system. This includes facilities for receipt of crude oil and condensate, product moving over a leased dock, rail and truck terminals in our plant, pipelines to local customers and connections to pipeline throughput facilities to Toronto and Hamilton.

After a long series of negotiations, an agreement was reached with The Chippewas of Sarnia for a 20-foot-wide pipeline corridor across The Chippewa Reserve. As part of this agreement, Petrosar assisted The Chippewas of Sarnia Industrial Developments Limited with a feasibility study of a proposed marine facility on the St. Clair River at the Reserve.

In September, Petrosar, being the source of supply, appeared before The National Energy Board at hearings held in Ottawa to support an application by Union Carbide Canada Limited to ship up to 26,000 barrels of residual fuel oil a day to a U.S. customer. The necessity to export residual fuel oil occurred when Union Carbide and Ontario Hydro deferred capital projects which would have consumed a total of 50,000 barrels a day of residual oil produced by Petrosar. The export of residual fuel oil is a measure which will enable Petrosar to avoid curtailment of its operations, and thereby meet its commitments for manufacturing petrochemicals.

With respect to the supply and demand of residual oil in Eastern Canada, there probably will be a considerable surplus from 1977 for the next several years. It is, therefore, reassuring that The National Energy Board granted Union Carbide a five-year export licence beginning September 1, 1977 to export a total of 47,412,000 barrels of residual fuel oil to the U.S. subject, after 1979, to annual determination of 'surplus' and a 'just and reasonable' export price.

Some setbacks were encountered during the year. A continuing shortage of skilled craftsmen throughout the latter half of 1976 impeded construction progress, bringing about a prediction of delay in the completion of the Olefins Unit. The supply of petrochemical products to our customers will begin in October instead of the earlier forecast of July, 1977. Construction of the Crude Unit, however, is proceeding as previously scheduled with completion early in 1977, which will make fuel products available to our customers in April.

The effects of the delay in completion of the Olefins Unit, coupled to the ever-present



inflationary pressures, is expected to increase the total peak financing requirements from \$575 million to approximately \$650 million. Of this amount, \$450 million is estimated as the total fixed capital cost. Discussions with the consortium of banks that has provided our financing previously, The Toronto-Dominion Bank, The Bank of Nova Scotia, Canadian Imperial Bank of Commerce, Bank of Montreal, and Banque Canadienne Nationale, regarding increased financing were initiated prior to the end of the year. We are confident that we will be successful in obtaining the needed additional financing.

If we consider the total of our fuel and petrochemical products, it can be seen that Petrosar will be a world force in terms of sales dollars. Petrosar will have the capacity to supply the primary petrochemicals for a Canadian chemicals and plastics industry large enough, when fully expanded to manufacture products now being imported, to have a positive effect on Canada's balance of trade estimated at \$1.6 billion in 1980 and nearly \$1.9 billion in 1985. This compares with a total balance of trade deficit in chemicals of \$879 million in 1975, of which plastics and synthetic resins alone accounted for \$250 million. In addition, it is estimated that there can be a downstream creation of between 8,000 and 10,000 new jobs in Canada as a result of a successful Petrosar operation.

Internally, development of our organizational activities in 1976 has proceeded in parallel with the progress of the plant construction program. A major corporate accounting activity centred on the preparation for the year-end conversion to electronic data processing. Training programs are underway for operators, laboratory personnel, materials management personnel, and maintenance craftsmen. In addition, an intensive management training program was developed and launched for all supervisors, and will continue into 1977. Information systems are being developed and refined to report statistical data in all important areas. Work was near completion for launching the "Petrosar Resource Effectiveness Program" (PREP), which is a basic company-wide effort for keeping us competitive in the petrochemical industry, through continued and substantial improvement in all cost and revenue factors. These, along with other programs for safety, health, environmental protection and operations optimization, are elements of an internal structure that are now well-advanced and, in part, in operating modes.

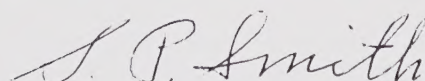
The close of 1976 brings us to the threshold of the fulfillment of all that so many people have worked for since 1970, when the project was originally identified as the Sarnia Olefins and Aromatics

Project. The basic challenge was, then, as it is today: to provide the Canadian chemical and plastics industry with the advantage of a world-scale facility so that primary petrochemicals can be obtained at competitive world prices.

Many important and unforeseen difficulties have been encountered on the route toward achievement of our goals. A massive wave of inflation occurred immediately following our incorporation in April, 1974 and has not yet subsided. This was accompanied by intense competition for goods and services in our industry throughout North America, resulting in escalating wages and prices, shortages of skilled personnel and project delays. The cost effects of these factors, added to the normally higher costs for construction in Canada compared to Gulf Coast U.S.A., create added problems in remaining competitive. Our competitive position is further handicapped by current tax policy, which does not recognize the special financial circumstances involved in such a gigantic development undertaken as a consortium of corporate shareholders. Finally, the threat of crude oil prices being raised to a level above those available to our competitors in the U.S.A. remains of extreme concern. Such higher crude oil prices would have serious consequences for Petrosar unless some form of offsetting compensation was instituted.

The fact that our Crude Unit will soon start up, followed in October by the Olefins Unit, is cause for expanding excitement. Being part of the first integrated refinery-petrochemical complex built in North America, an enterprise that is national in character, enhances our anticipation of approaching accomplishment. We are proud to be part of a development that will enable Canada's petrochemical industry to expand and, having regained its competitive edge, to face the future with growing confidence.

Our achievements would not be possible without the vision, the courage and the dedication of determined Canadians who have carried the Petrosar project to this culminating stage. As we move forward to reaching an on-stream status in 1977, we are confident that the people of Petrosar will successfully turn the vision into reality.



S. P. Smith  
February 15, 1977.

PETROSAR LIMITED  
**BALANCE SHEET**  
 December 31, 1976  
 (with comparative figures for 1975)

<b>Assets</b>	<i>(thousands of dollars)</i>	
	<u>1976</u>	<u>1975</u>
<b>Current</b>		
Cash and short-term deposits	\$ 25	1,495
Accounts Receivable	2,215	1,866
Inventories (note 2)	12,860	—
Prepaid expenses	<u>506</u>	<u>308</u>
Total current assets	15,606	3,669
 Long-term receivables	 133	 71
 Property, plant and equipment under construction, at cost (note 3)	 403,305	 202,028
 Pre-production expenses, at cost	 14,391	 3,717
	<u>433,435</u>	<u>209,485</u>

*The accompanying summary of significant accounting policies and notes are an integral part of the financial statements.*

On behalf of the Board:

I. C. Rush Director

S. P. Smith Director



# **Liabilities and Shareholder's Equity**

(thousands of dollars)

1976

1975

## **Current**

Accounts payable and accrued liabilities	\$ <u>30,353</u>	<u>21,885</u>
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## **Long-term debt**

Bank loans (note 4)	295,000	142,100
Subordinated debentures (note 5)	<u>56,082</u>	<u>—</u>

	<u>351,082</u>	<u>142,100</u>
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Total liabilities	381,435	163,985
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## **Shareholders' equity**

Capital stock (note 6)	50,000	43,500
Contributed surplus	<u>2,000</u>	<u>2,000</u>

	<u>52,000</u>	<u>45,500</u>
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	<u><u>433,435</u></u>	<u><u>209,485</u></u>
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PEAT, MARWICK, MITCHELL & CO.  
CHARTERED ACCOUNTANTS

## **AUDITORS' REPORT TO THE SHAREHOLDERS**

We have examined the balance sheet of Petrosar Limited as of December 31, 1976 and the statement of changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the company as of December 31, 1976 and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

*Peat, Marwick, Mitchell & Co.*

Toronto, Canada  
January 28, 1977

Chartered Accountants

**PETROSAR LIMITED**  
**STATEMENT OF CHANGES IN FINANCIAL POSITION**

Year Ended December 31, 1976  
(with comparative figures for 1975)

		<i>(thousands of dollars)</i>	
		1976	1975
Funds were provided by:	Term bank loans	\$152,900	114,018
	Subordinated debentures	54,000	—
	Capital stock	6,500	30,000
	Item not requiring an outlay of funds: deferred interest on debentures	2,082	—
		<u>215,482</u>	<u>144,018</u>
Funds were used for:	Long-term receivables	62	37
	Property, plant and equipment	201,277	150,945
	Pre-production expenses	10,674	2,641
		<u>212,013</u>	<u>153,623</u>
(Decrease) increase in working capital deficiency		(3,469)	9,605
Working capital deficiency, January 1		<u>18,216</u>	<u>8,611</u>
Working capital deficiency, December 31		<u>14,747</u>	<u>18,216</u>

*The accompanying summary of significant accounting policies and notes are an integral part of the financial statements.*

**PETROSAR LIMITED**  
**SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**  
December 31, 1976

These financial statements are prepared in accordance with accounting principles generally accepted in Canada. A summary of the significant accounting policies of the company is presented to assist the reader of the financial statements.

<b>Inventories</b>	Inventories are recorded at cost, which is less than net realizable value.
<b>Plant under construction</b>	The cost of the facilities includes: <ul style="list-style-type: none"> <li>(i) all charges from contractors for engineering, site improvement, buildings and equipment,</li> <li>(ii) the costs of engineering work by the company,</li> <li>(iii) commitment fees and interest charges on bank loans and interest charges on subordinated debentures, less interest earnings on short term investments.</li> </ul>
<b>Pre-production expenses</b>	All administrative costs are being deferred as pre-production expenses. These costs, together with the costs to be incurred in starting up the facilities will be amortized after the plant is in operation. The company has entered into transactions for the purchase and sale of crude oil and condensate. Net income from these transactions is not significant and has been deferred as a pre-production item.
<b>Basis of exchange translation</b>	Current liabilities originating in foreign currencies have been translated to Canadian funds at year-end rates and transactions during the year have been translated at the then prevailing rates.  Long-term liabilities originating in other than Canadian currency have been translated at the rates prevailing when the liabilities were incurred.



**PETROSAR LIMITED**  
**NOTES TO FINANCIAL STATEMENTS**  
Year Ended December 31, 1976

**1 The Company**

Petrosar Limited is a private company incorporated under the laws of Ontario. The company was incorporated for the purpose of building and operating a world-scale crude oil topping and naphtha cracking complex in the vicinity of Sarnia, Ontario. The plant is designed to process crude oil at a feed rate of 170,000 barrels a day and is expected to produce over 110,000 barrels per day of fuel products as well as one billion pounds of ethylene and two billion pounds of other primary petrochemicals annually. The majority of the petrochemicals and some fuels will be sold to the shareholders, other than Canada Development Corporation.

Current projections indicate that the peak financing of the project, including financing during construction, start-up and working capital requirements will approximate \$650 million. Financing will include bank loans as described in Note 4, and prepayments from certain customers. Shareholders are obligated to provide all additional financing required by either subscription for capital stock or purchase of subordinated debentures.

Capital stock is owned by:

Polysar Limited	40.2%
Canada Development Corporation	19.8%
DuPont of Canada Limited	20.0%
Union Carbide Canada Limited	20.0%
	<u>100.0%</u>

**2 Inventories**

	<u>thousands of dollars</u>
	<u>1976</u>
Crude oil and condensate	\$11,304
Plant supplies and materials	1,556
	<u>12,860</u>

**3 Property, Plant and Equipment**

Construction is expected to be completed in late 1977. Contracts for the projects are primarily on a cost-plus basis.

Costs incurred to December 31 were:

	<u>(thousands of dollars)</u>	
	<u>1976</u>	<u>1975</u>
Land	\$ 3,366	3,239
Buildings	4,745	2,708
Machinery and Equipment	395,194	196,081
	<u>403,305</u>	<u>202,028</u>

Interest and commitment fees on debt, amounting to \$24.6 million in 1976, (\$8.9 million in 1975) have been capitalized.

**4 Bank Loans**

The company has arranged the following term loans from a consortium of Canadian banks.

	<u>thousands of dollars</u>		
	<u>Principal Available</u>	<u>Outstanding</u>	
	<u>1976</u>	<u>1975</u>	
Term Loan I			
— repayable in Canadian funds	154,450	\$154,450	37,275
— repayable in U.S. funds	110,550	110,550	104,825
Term Loan II			
— repayable in Canadian funds	55,000	30,000	—
— repayable in U.S. funds	—	—	—
	<u>320,000</u>	<u>295,000</u>	<u>142,100</u>

Amounts advanced under Term Loan I and repayable in U.S. funds bear interest related to the average prime rate of specified New York banks. Amounts repayable in Canadian funds bear interest related to the Canadian prime rate. At December 31, 1976, these rates were 7.3% and 10.0% respectively.

Amounts advanced under Term Loan II may be converted and reconverted at the banks' option between Canadian funds and equivalent U.S. funds. Amounts repayable in Canadian funds bear interest related to the Canadian prime rate and amounts repayable in U.S. funds bear interest related to the London Interbank Offered Rate for U.S. dollars. At December 31, 1976, the rate on the Canadian funds borrowed was 10.5%. Advance of the balance of term loan II is conditional on the purchase by shareholders of an additional \$20 million of subordinated debentures.

The interest rates outlined are effective until March 1, 1985. Interest rates thereafter are to be agreed upon by the banks and the company. In the event that exchange rates prevailing at December 31, 1976, were to continue until the loans are repaid, the amount of the term loans then repayable would be greater by approximately \$1.0 million.

Minimum quarterly repayments of \$8.9 million are expected to commence in early 1979.

The company has also arranged with the same banks for demand operating loans of \$70 million, which had not been drawn at December 31, 1976.

**5 Subordinated Debentures**

Shareholders have subscribed for debentures, subordinated to the rights of the banks pursuant to the bank loan agreements, and subordinated to certain customer advances, in the principal amount of \$74 million. Interest related to the Canadian prime rate on the date of issue is payable semi-annually on January 1 and July 1. The debentures are payable on demand; however payment of interest and repayment of principal is deferred under a shareholders agreement and also until certain working capital levels have been met as specified in the bank loan agreements.

Debentures outstanding at December 31 were:

	<u>thousands of dollars</u>
	<u>1976</u>
Principal	\$54,000
Interest, deferred	2,082
	<u>56,082</u>

The average interest rate on debentures outstanding at December 31 was 12.1%.

**6 Capital Stock**

The authorized capital of the company consists of 4,000,000 common shares without par value. During the year 390,000 shares were issued for \$6.5 million cash. Total issued and fully paid capital stock consists of 3,000,000 shares which were issued for \$50 million cash.

Pursuant to the bank loan agreements, dividends may not be declared until certain working capital levels have been met and may not exceed 50% of the preceding year's net income.

**7 Statement of Income and Retained Earnings**

Income during the year was primarily derived from short term investment of temporarily available surplus funds and from the purchase and sale of crude oil and condensate. All expenses, net of this income, have been deferred as pre-production expenses or capitalized as part of the cost of property, plant and equipment.



**PETROSAR LIMITED**  
**NOTES TO FINANCIAL STATEMENTS**  
Year Ended December 31, 1976

**8 Income Taxes**

The company has certain potential income tax recoveries available which expire during the period 1979 to 1981. These reductions of future years' income taxes may aggregate up to:

- (i) approximately \$6 million, by application against income for tax purposes, of pre-production expense, net of interest and other income capitalized, and
- (ii) approximately \$14 million, by application of investment tax credits which result from qualified capital expenditures subsequent to June 23, 1975.

These potential income tax recoveries are not reflected in the balance sheet.

**9 Other Commitments**

At December 31, 1976 the company was committed to spend approximately \$30 million for acquisition of capital assets. Under long-term sales agreements the company is committed to supply a major portion of its products to its shareholders and others.

**10 Supplementary Information**

The aggregate direct remuneration to and payments for services of senior officers of the company totalled \$471,000 (\$441,000 in 1975). No remuneration was paid to directors for services as directors.

**11 Anti-Inflation Restrictions**

The company is subject to the Anti-Inflation Act and regulations which became effective on October 14, 1975. As a result, the Company's policies with respect to prices, profit margins, compensation and dividends may be restricted.







